

## **CASTOR BEAN - COARSE**

### General Information

#### GENERAL INFORMATION

TREFLAN 4 EC is a selective herbicide for the preemergence control of annual grasses and broadleaf weeds. TREFLAN 4 EC may be applied in liquid sprays of water or liquid fertilizer, or impregnated on dry bulk-fertilizer. To reduce loss of herbicidal activity, TREFLAN 4 EC should be soil-incorporated within 24 hours after application unless otherwise specified in specific use directions or supplemental labeling. TREFLAN 4 EC may be tank-mixed or followed by overlay or postemergence treatments with other herbicides to improve the spectrum of weeds controlled. TREFLAN 4 EC controls weeds by disrupting growth processes during germination. TREFLAN 4 EC does not control established weeds.

Applied according to directions and under normal growing conditions, TREFLAN 4 EC will not harm the treated crop. Over application may result in crop injury or rotational crop damage from herbicide carryover. Uneven application or improper incorporation of TREFLAN 4 EC can result in erratic weed control or crop injury. Seedling disease, cold weather, deep planting, excessive moisture, high salt concentration, or drought may weaken crop seedlings and increase the possibility of damage from TREFLAN 4 EC. Under these conditions, delayed crop development or reduced yields may result.

Do not apply TREFLAN 4 EC to soils that are wet or are subject to prolonged periods of flooding as poor weed control may result.

Do not use TREFLAN 4 EC on any crop grown in Pecos county or Reeves county, Texas.

In Montana, uses of TREFLAN 4 EC are limited to those described in supplemental labeling. Refer to supplemental labeling for crops and specific use directions.

Chemigation: TREFLAN 4 EC may be applied by chemigation on certain crops. See instructions for chemigation in the "Application Methods" section of the label. Also, see specific instructions for certain crops in the "Approved Crops" section of the label.

## Application Methods

### General

As spray volume decreases, the importance of accurate calibration and uniform application increases. Check calibration and uniformity of spray application daily. To avoid spray drift, do not apply when winds are gusting or when wind speed is greater than 15 mph.

### GROUND BROADCAST APPLICATION

Apply TREFLAN 4 EC in 5 to 40 gallons of liquid carrier per acre (broadcast basis), using any properly-calibrated, low-pressure herbicide sprayer that will apply the spray uniformly. The carrier may be water or liquid fertilizer as specified for the crop to be treated in the "Approved Crops" section of the label. For band application, adjust herbicide rate and spray volume in proportion to the band width and row width treated.

### AERIAL BROADCAST APPLICATION

Apply TREFLAN 4 EC in 5 to 10 gallons of water per acre. Adjust pump pressure, nozzle arrangements, speed, and application height to provide uniform application to the soil surface. Use swath markers or flaggers to assure proper swath width interval.

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather related

factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The distance of the outermost nozzles on the boom must not exceed  $\frac{3}{4}$  the length of the wingspan or rotor.

Nozzles must always point backward parallel with the airstream and never be

pointed downwards more than 45 degrees.

## Application Timing

### Preplant Application

TREFLAN 4EC may be applied and incorporated prior to planting when soil can be worked and is in a condition which allows thorough mixing to insure uniform incorporation. See \"Approved Crops\" section for application timing recommendations for specific crops.

[Editor's Note: Fall Application moved to end of \"Application Timing\" section.]

### Preemergence Application Immediately After Planting

Apply and incorporate TREFLAN 4 EC immediately after planting and prior to crop germination. Adjust incorporation equipment so as to not disturb planted seed. Refer to the \"Approved Crops\" section of the label for crop specific instructions.

### Postemergence and Layby Application

Apply and incorporate TREFLAN 4 EC at the recommended rate to the established crop at or before the last cultivation.

Required preharvest intervals for treatments with TREFLAN 4 EC for certain crops are specified in the \"Approved Crops\" section of the label. Crop cover may prevent uniform soil coverage from over-the-top sprays. To avoid this problem, use drop nozzles or directed sprays to achieve uniform soil coverage.

### Fall Application

TREFLAN 4 EC may be applied in the fall for weed control in the crop of the following growing season in all crops for which TREFLAN 4 EC is recommended as a preplant incorporated treatment. Refer to \"Approved Crops\" section for any crop specific fall application instructions. In the states of California, North Dakota, South Dakota and Minnesota, apply and incorporate TREFLAN 4 EC any time between September 1 and December 31. In all other states, fall apply TREFLAN 4 EC between October 15 and December 31.

Fall application of TREFLAN 4 EC is not recommended on field which remain wet or are subject to periods of flooding. Ground may be bedded up over winter. On

bedded ground, reduce beds to desired height before planting, by moving some treated soil from beds into furrows. Where soil is left flat over winter, care should be taken not to turn up untreated soil during spring bedding operations. Destroy established weeds during seedbed preparation. Weeds established in furrows as a result of exposing untreated soil should be destroyed before planting.

## Incorporation Directions

### Soil Preparation and Incorporation

Ground cover or existing weeds, can interfere with uniform soil incorporation of TREFLAN 4 EC. A manageable level of ground cover will allow uniform incorporation into the top 2 to 3 inches of the final seedbed. Ground cover and crop residues, if excessive, should be reduced by appropriate soil tillage prior to application.

TREFLAN 4 EC must be incorporated within 24 hours after application unless otherwise specified on supplemental labeling.

Non-uniform application may result in erratic weed control or crop injury. With most equipment and methods of application, a second incorporation is required and may occur any time before planting. The second incorporation should be in a different direction, and to avoid bringing untreated soil to the surface, should not be deeper than the first. Note: Two-pass incorporation is required for all special use programs unless otherwise specified.

**General Soil Conditions:** The soil surface should be smooth enough to allow for uniform application and efficient incorporation of TREFLAN 4 EC. Break up clods using tillage equipment prior to application of TREFLAN 4 EC. Apply when soil moisture is sufficient to allow the breakup of large clods and uniform mixing during the incorporation process. Soil compaction and/or non uniform incorporation may occur if soil is excessively moist.

**Incorporation in Bedded Culture:** In bedded culture, TREFLAN 4 EC should be incorporated to a depth of 2 to 3 inches in the final seedbed.

**Application Prior to Bedding:** Apply TREFLAN 4 EC and incorporate 1 time with recommended equipment. The bedding operation serves as the second incorporation. Do not expose untreated soil during post-bedding operations such as planting since removal of treated soil during planting can allow weed germination

and establishment in the drill row.

**Application After Bedding:** Knock off beds to planting height before applying TREFLAN 4 EC. Apply and incorporate TREFLAN 4 EC with recommended equipment that will conform to the shape of the bed. Do not expose untreated soil.

**Cultivation After Planting:** Treated crops may be shallowly-cultivated without reducing the weed control activity of TREFLAN 4 EC. Limit depth of cultivation to the zone of treated soil to avoid moving untreated soil to the surface. Exposure of untreated soil may cause loss of weed control.

**Conservation Tillage Practices:** In reduced- or minimum-tillage situations, fall or spring application and incorporation of TREFLAN 4 EC may be combined with tillage operations. The first incorporation may utilize equipment such as a tandem disc, combination implement or bedding equipment that provides good soil mixing but leaves a maximum amount of crop residue on the soil surface. The second incorporation may be accomplished with tillage equipment that provides uniform soil mixing used in conjunction with no-till planters (See specific recommendations for reduced- or conservation-tillage situations for cotton and soybeans in the \"Approved Crops\" section).

#### Single Pass Incorporation Option

TREFLAN 4 EC may be incorporated in a single pass if incorporation conditions allow for thorough and uniform mixing into the top 2 to 3 inches of the final seedbed. Thorough and uniform incorporation may be achieved if the soil at the time of incorporation is of good tilth with moderate moisture, and is relatively free of clods and crop residue.

#### Limitations, Restrictions, and Exceptions

Apply TREFLAN 4 EC as a soil-incorporated treatment, before or immediately after planting. If applied and incorporated after planting, set equipment so as to not disturb the seed.

- Coarse and medium soils with 2% to 5% organic matter - 1.5 pints
- Fine soils with 2% to 5% organic matter - 2.0 pints

- Soils with 5% to 10% organic matter - 2.0 pints

- Use lower rate in rate range in areas receiving less than 20 inches total annual rainfall and irrigation.

Method

[Soil incorporation](#)

Rates

[field rates 0](#)

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Restricted Entry Interval

12 hours

Exception: If the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

Soils

[Coarse](#)

[Loamy Sand](#)

[Sandy Loam](#)

[Sand](#)

Timings

[before or immediately after planting](#)